

IN THE CLAIMS:

The pending claims are set forth below and have been amended and/or cancelled, without prejudice, where noted:

1. (Currently Amended) A polyethylene film having good barrier properties comprising a film prepared by forming a modified polyethylene polymer into a film, wherein the modified polyethylene polymer is prepared by treating a polyethylene polymer having an MI 2.16 of from about 0.10 to about 7.0 and a polydispersity of from about 3 to about 7 to increase long chain branching by an amount sufficient to decrease the rate at which water vapor passes through a film of the modified polyethylene polymer as compared to an similar film of the unmodified polyethylene polymer film.
2. (Original) The polyethylene film of Claim 1 wherein the modified polyethylene polymer is prepared by admixing the polyethylene polymer with from about 10 to about 150 ppm of a peroxide free radical initiator and extruding under extrusion conditions sufficient to increase the long chain branching of the polyethylene polymer.
3. (Original) The polyethylene film of Claim 1 wherein the modified polyethylene polymer is prepared by admixing the polyethylene polymer with air and extruding under extrusion conditions sufficient to increase the long chain branching of the polyethylene polymer.
4. (Original) The polyethylene film of Claim 1 wherein the modified polyethylene polymer is prepared by admixing the polyethylene polymer with at least one additional polyethylene polymer wherein the at least one additional polyethylene polymer has a higher level of long chain branching than the polyethylene polymer.
5. (Original) The polyethylene film of Claim 1 wherein the MI 2.16 is from about 0.30 to about 5.0.

6. (Original) The polyethylene film of Claim 5 wherein the MI 2.16 is from about 0.70 to about 3.0.
7. (Original) The polyethylene film of Claim 1 wherein the polyethylene polymer is a Ziegler/Natta catalyzed polyethylene polymer.
8. (Currently Amended) A process for preparing a polyethylene film having good barrier properties comprising preparing a modified polyethylene polymer by treating a polyethylene polymer having an MI 2.16 of from about 0.10 to about 7.0 and a polydispersity of from ~~about~~ 3 to ~~about~~ 7 to increase long chain branching by an amount sufficient to decrease the rate at which water vapor passes through a film of the modified polyethylene polymer as compared to ~~an similar film~~ of the unmodified polyethylene polymer film, and forming a film of the modified polyethylene.
9. (Original) The process of Claim 8 wherein the modified polyethylene polymer is prepared by admixing the polyethylene polymer with from about 10 to about 150 ppm of a peroxide free radical initiator and extruding under extrusion conditions sufficient to increase the long chain branching of the polyethylene polymer.
10. (Original) The process of Claim 8 wherein the modified polyethylene polymer is prepared by admixing the polyethylene polymer with air and extruding under extrusion conditions sufficient to increase the long chain branching of the polyethylene polymer.
11. (Original) The process of Claim 8 wherein the modified polyethylene polymer is prepared by admixing the polyethylene polymer with at least one additional polyethylene polymer wherein the at least one additional polyethylene polymer has a higher level of long chain branching than the polyethylene polymer.
12. (Original) The process of Claim 8 wherein the MI 2.16 is from about 0.30 to about 5.0.

13. (Original) The process of Claim 12 wherein the MI 2.16 is from about 0.70 to about 3.0.

14. (Original) The process of Claim 8 wherein the polyethylene polymer is a Ziegler/Natta catalyzed polyethylene polymer.

15. (Original) The process of Claim 8 additionally comprising forming the film into a packaging film.

16. (Original) The process of Claim 9 wherein the packaging film is selected from the group consisting of food packaging, fragrance and fragrance-impregnated products packaging, photographic film packaging, medical application packaging, and agricultural product packaging.

Claims 17-23. (Canceled)